Appendix Q – Special Disability Program Planning Initiatives

CARES Phase II - Blind Rehab Special Disabilities Population Demand Model

The model for calculating blind rehab bed level projections for FY2012 and FY2022 is presented below. The model uses FY2001 utilization rates and blind rehab enrollee projections by VISN. The impact of adding two blind rehab centers in VISN 16 and VISN 22 was calculated.

The model relied on two trend charts: one of the general veteran population and another of legally blind veterans, two spreadsheets that calculate projected blind rehab bed levels, and two supporting spreadsheets, one for computing market share by VISN and FY, and another for applying those market share percentages to the blind veteran population to derive legally blind enrollee projections.

Trend Chart of Total Veterans Population & Enrollee Projections FY2001 - FY2022 (Exhibit – 1a – see below)

This combination area/line chart shows trends of national population, enrollee and market share projections for all veterans from FY2001 to FY2022.

Data sources:

- Estimates for the veteran population are from VetPop2001Adj (VetPop2001 Adjusted for Census 2000).
- Total enrollee projections are CACI/Milliman, enrollment estimates based on VetPop2001Adj and adjusted for enrollment policy changes from County_fyend_census2000 SAS Dataset.
- Market share is a percentage calculated by dividing enrollment projections by population projections.

Trend Chart of the Legally Blind Veteran Population & Enrollee Projections FY2001 - FY2022 (Exhibit - 1b – see below)

This combination area/line chart shows trends of national population, enrollee and market share projections for legally blind veterans from FY2001 to FY2022.

Data sources:

- Estimates for the legally blind veteran population from Bill Delaune, CARES SUMMARY: Legally Blind Veterans, CD 11/11/2002.
- Market share is a percentage calculated by dividing total projected enrolled veterans from CARES CACI/Milliman, enrollment estimates based on VetPop2001Adj and adjusted for enrollment policy changes from County_fyend_census2000 SAS Dataset by total veteran populations projections from VetPop2001Adj.
- Blind Rehab enrollees are projected by multiplying market share times blind veteran population estimates.

Projections with Baseline Utilization

Projected bed levels by VISN for FY2012 and FY2022 were determined. The percent change from the base year (FY2001) to each projected year was calculated, mandated bed levels were displayed and the gap between available and projected beds (based upon projected bed days of care) was computed. [Final results are shown on the spreadsheet below (page 3).]

Adding Centers in VISN 16 and 22

The effect of adding new centers in VISNs 16 and 22 was determined using an utilization rate of 2,839 Bed Days per 1,000 enrollees in VISN 16 and 22. This rate represents the average rate for VISNs with centers. Using the new rate increased projected bed levels from 20 to 36 in FY2012 and 21 to 37 in FY2022 in VISN 16, and from 17 to 24 in FY2012 and from 16 to 23 in FY2022 in VISN 22, as compared to the original results. [Ref. Spreadsheet – page 3.]

Exhibit -1a

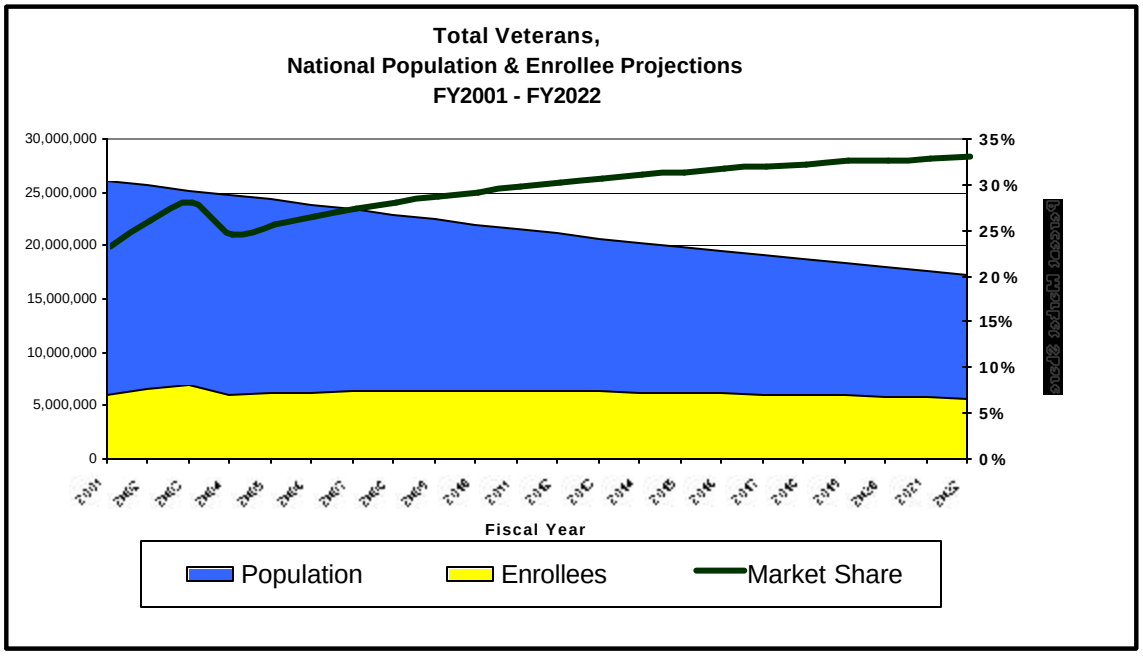
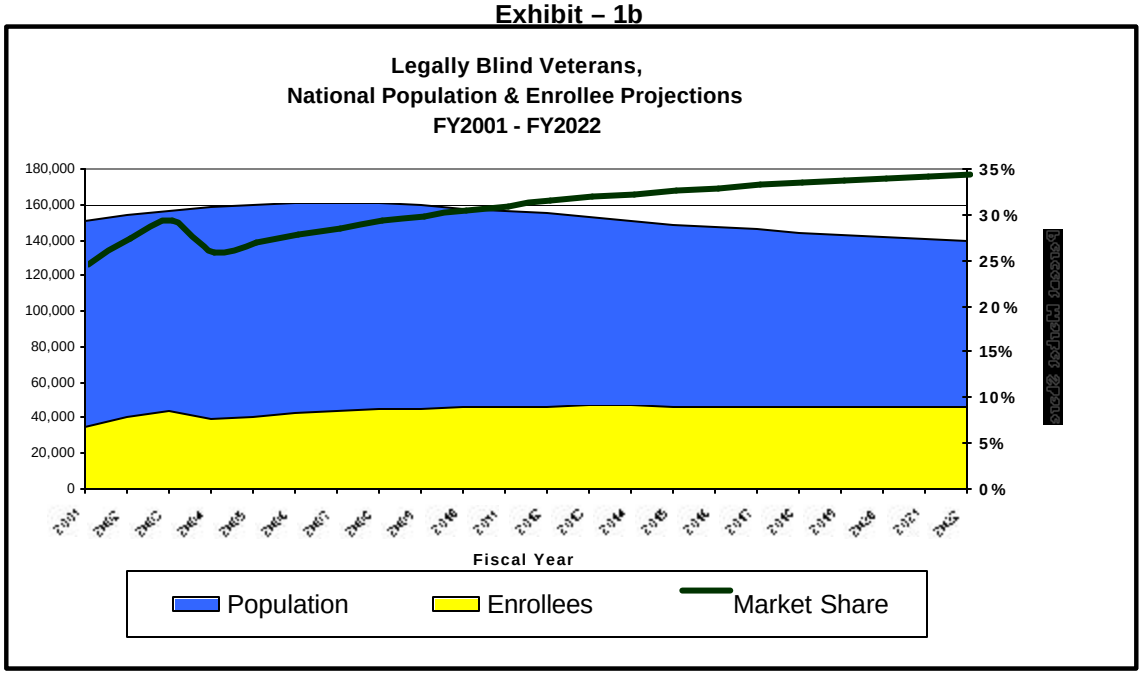


Exhibit – 1b



Blind Rehabilitation Projections, Planning Initiatives and Recommendations for Implementation

	Blind Rehab Baseline 2001		Bed Levels Projected*		Bed Gaps (Projected - Mandated)		Blind Rehab Planning Initiatives (PIs)		
VISN	Estimated Beds *	Mandated Levels**	2012	2022	2001-2012	2001-2022	Inpatient PIs	VISN plan	Recommendation for Implementation
1	12	34	15	14	-19	-20			
2	3		4	3	4	3			
3	6		6	5	6	5			
4	7		9	7	9	7			
5	4		6	6	6	6			
6	7		10	11	10	11			
7	19	47	29	33	-18	-14			
8	37	27	47	47	20	20			Needs plan to address additional projected capacity
9	9		13	14	13	14			
10	6		9	8	9	8			[Data can support 15-bed BRC in Cleveland (for excess workload going to V12 and V01)]
11	7		10	10	10	10			
12	7	34	9	8	-25	-26			
15	4		6	5	6	5			
16	14		36	37	36	37	New Center	20-bed BRC in Biloxi	36-bed BRC in Biloxi
17	9	15	13	14	-2	-1			
18	17	34	23	25	-11	-9			
19	9		13	14	13	14			
20	13	15	20	22	5	7			
21	12	32	18	17	-14	-15			
22	12		24	23	24	23	New Center	24-bed BRC at Long Beach	24-bed BRC at Long Beach
23	4		5	5	5	5			
Total	221	238	324	331	86	93			

*Projected Beds = Bed Days Projections / 365 / .85 (based upon enrollment estimates & projections adjusted for Census 2000 and impacts of enrollment policy changes); population-based by

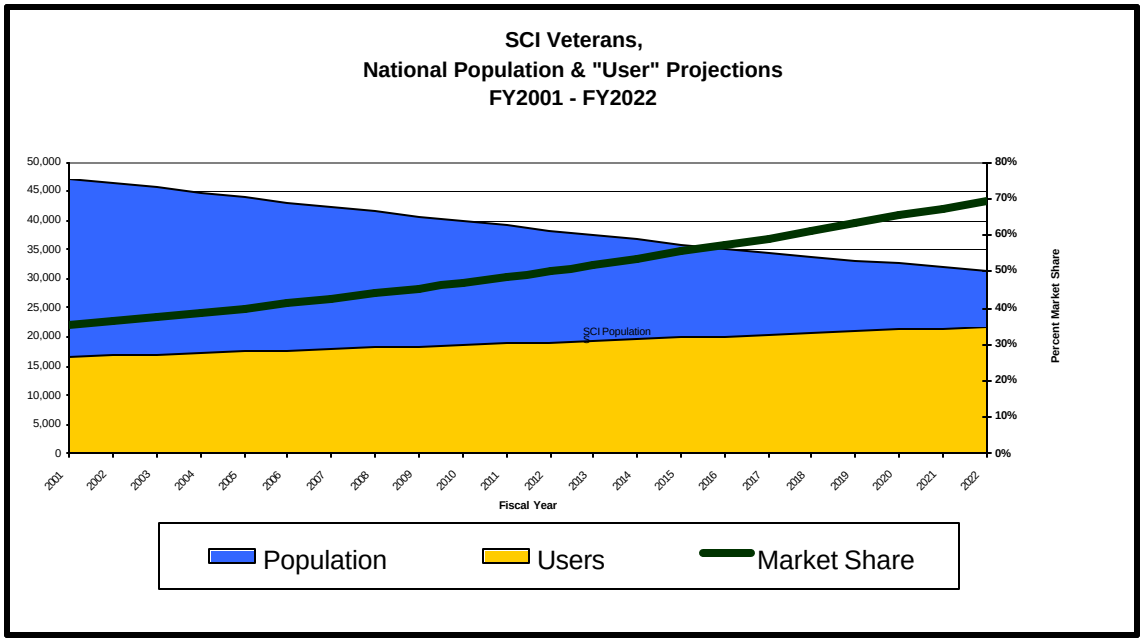
**Source: Director, Blind Rehabilitation Service

Future SCI/D Special Disabilities Population Demand Model

The model developed calculates projected acute/sustaining SCI/D bed levels, based upon

- A supporting spreadsheet for applying the VISN percent of total priority 1-4 enrollees to the SCI veteran total "enrollee-user" estimates,
- A spreadsheet that presents the VISN percentage of total enrollees, and
- A trend chart of Priority 1-4 National Veteran Population & Enrollee Projections FY2001 - FY202.

Trend Chart of SCI Veteran Population & "User" Projections FY2001 - FY2022
The combination area/line chart below shows trends of national population, users, and market share projections for SCI veterans from FY2001 to FY2022.



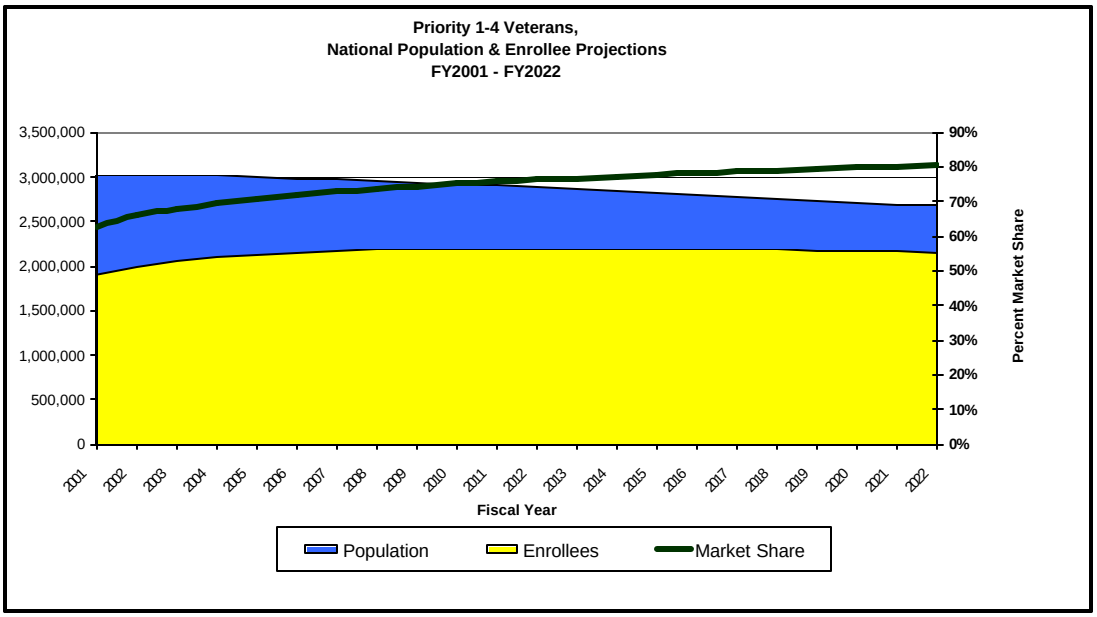
DATA Sources:
Estimates for the SCI veteran population prevalence are from Lasfarques, Custis, Morrone, Carswell, & Nguyen (1995) (SCI prevalence of 1,634 per million veterans) plus 25% of veterans with multiple sclerosis based on state-by-state latitude adjusted VISN multiple sclerosis (MS) prevalence rates based on Bandolier (2001). Myhr et al.'s (2001) finding that following a fifteen-year course of multiple sclerosis, only 75.8% could manage without wheelchair use is the basis for the 25% of veterans with multiple sclerosis also receiving spinal cord injury diagnoses of tetraplegia or paraplegia.
Actual FY2001 SCI/D market share was calculated by matching 22,334 living veterans in the Allocation Resource Center listing of veterans with SCI, who had accessed the VA system using SCI services since 1988, by SSN to 18,008 records in the enrollment file. 16,665 of these veterans with SCI/D in the enrollment file had verified or pending enrollments in FY2001. ZIP Codes from the National Patient Care Database were mapped back to VISNs using the ZIP_VISN Field of File ZIP04_2002.DBF of the VA Planning Systems Support Group. Market share is a percentage (35%) calculated by dividing current enrollees by the SCI population described above (16,665/47,172) and incrementally increasing market share to 69% in FY2022.
SCI/D users are projected by multiplying VISN percent of priority 1-4 enrollees times total SCI/D "enrollee-user" estimates.

Projections with Baseline FY2001 Acute/Sustaining SCI/D Utilization (excluding LTC SCI in VISNs 1, 3, and 6)

Projected bed levels by VISN for FY2012 and FY2022 were calculated. The percent change from the base year (FY2001) to each projected year is calculated, mandated bed levels from VHA Directive 2000-022, P.L. 107-135, and P.L. 104-262 are displayed, and the gap between projected and available beds is computed [see bed projections on the spreadsheet page 7].

Trend Chart of Priority 1-4 National Veteran Population & Enrollee Projections FY2001 - FY2022

The combination area/line chart below shows trends of national population, enrollee and market share projections for all veterans included in priority groups 1 - 4 from FY2001 to FY2022. This information was also used for the SCI/D LTC projections (see below, page 6).



CARES Phase II – SCI/D LTC Special Disabilities Population Demand Model

A model for calculating the Long Term Care (LTC) Average Daily Census (ADC) demand projections was developed for FY2001, FY2012, and FY2022 for veterans with spinal cord injury and disorders (SCI/D), who have 1a enrollment priorities (70%+ Service Connected) and 'Activities of Daily Living' (ADL) deficiency scores of three through six only. The model uses the LTC Model developed by the VHA Office of Policy and Planning (OPP) in consultation with subject matter experts from the Geriatrics and Extended Care Strategic Health Care Group, the Agency for Health Care Policy and Research, and the University of Michigan. The OPP LTC Model essentially calculates the product of three variables: projected enrollee population, LTC use rates for males derived from national, non-VA surveys, and Market Share percentage provided by VHA. LTC use rates for males are defined by four age groups and seven ADL Deficiency Levels, but only ADL deficiency scores of three through six are used in the current calculations.

Data Sources:
Estimates for the SCI veteran population prevalence are from Lasfarques, Custis, Morrone, Carswell, & Nguyen (1995) (SCI prevalence of 1,634 per million veterans) plus 25% of veterans with multiple sclerosis based on state-by-state latitude adjusted VISN multiple sclerosis (MS) prevalence rates based on Bandolier (2001). Myhr et al.'s (2001) finding that following a fifteen-year course of multiple sclerosis, only 75.8% could manage without wheelchair use is the basis for the 25% of veterans with multiple sclerosis also receiving spinal cord injury diagnoses of tetraplegia or paraplegia.

Actual FY2001 SCI/D market share was calculated by matching 22,334 living veterans in the Allocation Resource Center listing of veterans with SCI since 1988 by SSN to 18,008 records in the enrollment file. 16,665 of these veterans with SCI/D in the enrollment file had verified or pending enrollments in FY2001. ZIP Codes from the National Patient Care Database were mapped back to VISNs using the ZIP_VISN Field of File ZIP04_2002.DBF of the VA Planning Systems Support Group. Market share is a percentage (35%) calculated by dividing current enrollees by the SCI population described above (16,665/47,172) and incrementally increasing market share to 69% in FY2022.
SCI enrollee-users are projected by multiplying VISN percent of priority 1-4 "users" times the total SCI "enrollee-user" estimates.

LTC Average Daily Census (ADC) is derived from the OPP LTC Planning Model application provided by the VA Planning Systems Support Group. OPP LTC ADC is the result of the following computations. All calculations are VISN specific based on SCI/D VISN enrollee populations. SCI/D "enrollee-users" are projected by multiplying national "enrollee-user" totals times VISN percent of national.

Spinal Cord Injury & Disorders Projections, Planning Initiatives and Recommendations for Implementation

	Acute & Sustaining Bed Levels (2001)		Acute Bed Levels Projected		Acute Bed Gaps (Projected - Available)		SCI LTC Bed Levels			LTC Bed Levels Projected**		LTC Bed Gaps*** [(Projected - (Available + Designated)]					
VISN	Acute Staffed Beds *(Ref only)**	Acute Available Beds	2012	2022	2012	2022	SCI LTC Staffed Beds	SCI LTC Available Beds	Desig-nated LTC for SCI	2012	2022	2012	2022	Acute & Sustaining SCI Bed Planning Initiatives	LTC SCI Planning Initiatives	VISN-level Plans	Recommended for Implementation
1	34	40	28	29	-12	-11	30	40		63	65	23	25				
2			20	20	20	20			6	28	28	22	22	**New Center**		10-bed SCIU @ Syracus	30-bed SCIU @ Syracus or Albany
3	65	76	47	45	-29	-31	15	20		45	44	25	24			Consolidate all SCI beds at the Bronx	Move Castle Point SCI LTC beds to theBronx; SCI OPC at VA Hudson Valley. Keep E.Orange SCI beds open.
4			45	47	45	47			9	63	66	54	57			SCI outpt clinic @ Philadelphia	Consider SCI Outpt. Clinic at Philadelphia
5			29	34	29	34			9	40	47	31	38				
6	68	100	54	65	-46	-35	50	64		86	102	22	38				
7	55	60	71	86	11	26			10	99	121	89	111	**Add'l beds at Augusta**		20-bed expansion	Concur
8	108	126	90	105	-36	-21			68	124	145	56	77		**Tampa 30 beds**	Activation of 30 LTC	Concur
9	60	70	54	63	-16	-7			20	66	78	46	58		**Develop Memphis 20 beds**	a) 20 LTC beds; b) decrease acute beds	a) concur; b) maintain 70 available, 60 staffed acute beds
10	32	38	21	24	-17	-14			10	43	48	33	38			20-bed SCI LTC beds proposed	Concur with plan for 20 SCI LTC beds @ Cleveland
11			38	44	38	44			9	53	60	44	51				
12	90	106	60	66	-46	-40	30	30	10	45	49	5	9				
15	27	32	23	26	-9	-6			9	47	52	38	43				
16	34	40	74	90	34	50			9	128	155	119	146	**New Center**		25 to 34 bed SCIU at No. Little Rock	Reconsider location & justify choice
17	52	60	56	66	-4	6			9	78	93	69	84				
18	26	30	30	36	0	6			9	63	73	54	64				
19			34	42	34	42			9	46	56	37	47	**New Center**		30-bed SCIU @ Denver	30-bed SCIU @ Denver
20	32	38	52	60	14	22			9	79	91	70	82				
21	43	43	44	46	1	3			10	64	67	54	57				Need to keep Neurosurgery at Palo Alto.
22	98	115	68	71	-47	-44			30	68	71	38	41		**Develop VISN22 30 beds**	Convert 30 acute to 30 LTC beds @ Long Beach	Concur
23			41	47	41	47			15	58	65	43	50	**New Center**		Initial 20-bed SCIU in Minne-apolis, to 40 beds, in phases	30- to 40-bed SCIU in Minneapolis
Total	**824***	**974**	**981**	**1,109**	**7**	**135**	**125***	**154**	**260***	**1,388**	**1,575**	**974**	**1,161**				

***Capacity Requirement (Source: VHA Directive 2000-022, P.L. 107-135, and P.L. 104-262); "acute" = 'acute' + 'sustaining'**

****LTC SCI beds are projected to include the mandated, designated, and NHCU bed projections for SCI/D patients.**

*****LTC Gaps will be reconciled with Long Term Care NHCU Projections -- some of the "gaps" may represent beds available in NHCUs.**

Approximately 800 ADC of NHCU-LTC is devoted to SCI/D patients. =PIs